

What is claimed is:

[Claim 1] 1. A method of determining the time for executing optimal power calibration applied in a closed loop control circuit of a laser diode in an optical drive, the method comprising:

receiving a driving signal output from a compensator;
transforming the driving signal to a driving signal value by an analog to digital converter;
transforming the driving signal value to a temperature value according to a look up table; and
executing the optimal power calibration when the temperature value is higher than a predetermined temperature.

[Claim 2] 2. The method of claim 1 wherein relationships between the driving signal value and the temperature value are recorded in the look up table.

[Claim 3] 3. The method of claim 1 wherein the look up table is stored in a read only memory.

[Claim 4] 4. The method of claim 1 further comprising:

transforming a digital control signal to an analog control signal by a digital to analog circuit;
the compensator receiving a difference of the analog control signal and a feedback signal to generate the driving signal;
an amplifier receiving the driving signal and outputting a driving current;
the laser diode receiving the driving current and generating a laser beam; and
a front monitor diode receiving the laser beam to generate the feedback signal.

[Claim 5] 5. A method of determining the time for executing optimal power calibration applied to a closed loop control circuit of a laser diode in an optical drive, the method comprising:

receiving a driving signal output from a compensator;
transforming the driving signal to a driving signal value by an analog to digital converter; and
executing the optimal power calibration when the driving signal value is higher than a driving signal threshold value.

[Claim 6] 6. The method of claim 5 wherein the driving signal threshold value is stored in a read only memory.

[Claim 7] 7. The method of claim 5 further comprising:

transforming a digital control signal to an analog control signal by a digital to analog circuit;
the compensator receiving a difference of the analog control signal and a feedback signal to generate the driving signal;
an amplifier receiving the driving signal and outputting a driving current;
the laser diode receiving the driving current and generating a laser beam; and
a front monitor diode receiving the laser beam to generate the feedback signal.